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CAVITY EMBEDDED MEANDER LINE LOADED ANTENNA AND METHOD AND APPARATUS FOR LIMITING VSWR

This application is a 371 of PCT/US03/41777 dated 12/31/2003.

FIELD OF INVENTION

This invention relates to meander line loaded antennas in more particularly to a configuration of the meander line loaded antenna involving a cavity and embedding the antenna in the cavity, thereby permitting flush mount operation. This invention also relates to methods and apparatus for limiting the VSWR in meander line loaded antennas.

BACKGROUND OF THE INVENTION

In the past, and as illustrated in U.S. Patent 6,323,814 by John T. Apostolos, entitled Wideband Meander Line Loaded Antenna, assigned to the assignee hereof, and incorporated herein by reference, wide bandwidth miniaturized antennas can be provided through the utilization of planner conductors which are fed through a so-called meander line which involves impedance changes to reduce the physical size of the antenna while at the same time permitting wideband operation.

The plates of the meander line loaded antennas are configured to exist above a ground plane and are spaced therefrom, with a meander line connecting a top plate or element to the ground plane. For operation in the 225 MHz to 2 GHz range, the height of the plates which are spaced from the ground plane can exceed five inches. Were the meander line loaded antennas operate down to 100 MHz, then the height above the ground plane would be on the order of ten inches.